



~~Our ref: KON-1837~~

~~Client's ref: P-6278-001-0000~~

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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**RCE**

In re Application of: S. OKANO et al. : Art Unit: 1752

Appln. No. : 10/725,310 :

Examiner: H. V.

Filed : December 1, 2003 :

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Title : CONCENTRATED BLEACH-FIXER:  
COMPOSITION FOR SILVER  
HALIDE COLOR PHOTOGRAPHIC:  
MATERIAL  
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**DECLARATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

S i r:

I, Satoshi Okano, hereby declare and say as follows:

1. I am one of the Inventors of the above-identified Application.

2. I received a Master's degree in engineering from the University of Electro-Communications in 1999. Since that time, I have been employed by Konica Corporation (now Konica Minolta Photo Imaging, Inc.), the Assignee of the above-identified Application. During my employment at Konica, I have engaged in research and development in the field of photographic materials.
3. I am aware that the Examiner has rejected the above-identified Application based on Kuykendall (US 6,534,253) and Kamada (US 5,534,395). Tests have been performed and are reported herein to demonstrate the synergistic properties of the composition claimed in the above-identified Application compared to the teachings of Kuykendall and Kamada. These tests have been performed either by myself or under my direct supervision and control. These tests are summarized in the attached Tables 10B and 10C. The data in Tables 10B and 10C incorporates some of the data from my previous Declaration dated July 14, 2005.
4. Each of the bleach-fixing solutions shown in the attached Table 10B were prepared based on Table V at col. 16 in Example 1 of Kuykendall. The Fe(II) ratio of solutions

shown in Table 10B was 50 mol-% for each solution. Four

different imidazole compounds were tested as shown in Table 10B and the amount of the imidazole compound was varied as shown in Table 10B, except for Experiment No. 119, which had no imidazole compound in the solution. The amount of imidazole was varied, in mol per liter, in accordance with the amount of imidazole compound taught in the Application, 0.01 - 2.5 mol per liter.

5. Each of the bleach-fixing solutions were stored in container (b) described at page 64 of the above-identified Application. Each of the bleach-fixing solutions were then evaluated for background whiteness and stain in accordance with Example 1 of the above-identified Application. The results of the evaluations are illustrated in the attached Table 10B.

6. Comparative solution 119 containing no imidazole compound exhibited a whiteness and stain between 2 to 10 times worse than the solution which contained the imidazole compound. One of skill in the art would not expect an improvement in whiteness and stain when adding the imidazole compound to a bleach-fixing composition on the order of 2 to 10 times.

7. In order to demonstrate what one of skill in the art would expect from a combination of an imidazole compound in a bleach fixing solution having an aminocarboxylic acid iron complex, additional tests were performed where the aminocarboxylic acid had an Fe(II) ratio below 50 mol %. These tests are reported in Table 10C. The solutions in Table 10C were prepared and tested in the same manner as the ones in Table 10B, except the Fe(II) ratio was 40 mol %. The amounts and types of imidazole compounds are shown in Table 10C. Table 10C demonstrates that imidazole, by itself, provides virtually no improvement.

8. I believe that Tables 10B and 10C demonstrate the synergistic combination of the claimed invention, namely, the synergistic combination of the claimed Fe(II) ratio and the imidazole compound, compared to the teachings of Kuykendall and Kamada. Table 10B demonstrates that Inventive solutions which have the claimed Fe(II) ratio, 50 mol % or more, and containing an imidazole compound exhibited improvements in whiteness and stain of about 2 to 10 times Comparative solution 119 satisfying the claimed Fe(II) ratio but not containing an imidazole compound. Table 10C demonstrates that solutions containing an

imidazole compound exhibited virtually no improvement to Comparative solution 119.

9. I believe that the synergistic combination of the claimed Fe(II) ratio and the imidazole compound illustrated in Table 10B is both surprising and unexpected based on the teachings of Kuykendall and Kamada.

It is declared by undersigned that all statements made herein of undersigned's own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the U.S. Code; and that such willful false statements may jeopardize the validity of this Application or any patent issuing thereon.

Satoshi Okano

Satoshi Okano

Dated: This 16<sup>th</sup> day of January, 2006.

DCL/mr

Encl: Table 10B  
Table 10C

TABLE 10BFe(II) 50%

<u>Exp. No.</u>	<u>Imidazole Compound</u>	<u>Amount of Imidazole Compound</u>	<u>Whiteness</u>	<u>Stain</u>
119	None	0	0.1	0.11
123	1	0.02	0.04	0.05
103	1	0.2	0.03	0.04
104	1	0.43	0.01	0.04
124	1	2.0	0.02	0.03
127	2	0.02	0.04	0.05
109	2	0.2	0.04	0.04
110	2	0.43	0.03	0.04
128	2	2.0	0.03	0.03
131	3	0.02	0.04	0.04
115	3	0.2	0.04	0.04
116	3	0.43	0.04	0.04
132	3	2.0	0.03	0.03
135	4	0.2	0.05	0.05
136	4	2.0	0.03	0.04

Imidazole Compounds

1. Imidazole
2. 1-methylimidazole
3. 2-methylimidazole
4. 1-(2-hydroxyethyl)imidazole

TABLE 10C

Fe(II) 40%

<u>Exp. No.</u>	<u>Imidazole Compound</u>	<u>Amount of Imidazole Compound</u>	<u>Whiteness</u>	<u>Stain</u>
119	None	0	0.1	0.11
121	1	0.02	0.1	0.1
101	1	0.2	0.09	0.1
102	1	0.43	0.08	0.1
122	1	2.0	0.08	0.1
125	2	0.02	0.1	0.11
107	2	0.2	0.09	0.1
108	2	0.43	0.08	0.1
126	2	2.0	0.08	0.1
129	3	0.02	0.1	0.1
113	3	0.2	0.09	0.1
114	3	0.43	0.09	0.1
130	3	2.0	0.09	0.1
133	4	0.2	0.11	0.11
134	4	2.0	0.09	0.1